

ARNG and ANG Technician Personnel  
**ENVIRONMENTAL DIFFERENTIAL & HAZARD PAY (EDP/HP)**

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This Plan is applicable to the National Guard of Arizona. Any previous guidance pertaining to the Technician Environmental Differential & Hazard Pay (EDP/HP) is hereby rescinded. Supplementation of this Plan is not authorized.

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# **ENVIRONMENTAL DIFFERENTIAL & HAZARD PAY (EDP/HP) PLAN**

## **SECTION 1 - GENERAL**

### **1. PURPOSE:**

- a. To establish procedures for the review of work situations that warrant environmental differential pay (EDP) and hazard pay (HP) determinations. To document determinations on situations under which environmental differential pay or hazard pay may or may not be paid.
- b. Management philosophy within the National Guard has always been to eliminate or alleviate the hazard so that the work place (working environment) meets or exceeds prevailing safety standards. The object is to assure that all hazards, physical hardship and working conditions of an unusually severe nature are eliminated or reduced to the lowest level possible.

### **2. REFERENCES:**

- a. 5 U.S.C. 5343 (c) (4) - Hazard Duty: Proper differentials for duty involving severe working conditions / hazards.
- b. 5 U.S.C. 5545 (d) – Hazardous duty differential.
- c. 5 U.S.C. 5548 (b) – Authorization for Hazard Duty Regulations.
- d. 5 C.F.R 532.511, Appendix A, subpart E – Environmental Differential Pay
- e. 5 C.F.R 550.901, Appendix A, subpart 1 – Pay for involving physical hardship or hazard.
- f. 5 C.F.R 532, Part 532, Sections 532.501 and 532.511, Part 1 Payment for actual exposure and Part II payment on basis of hour in pay status for subpart E and appendix A – Environmental differentials paid for exposure to various degrees of hazards, physical hardships, and working conditions of an unusually severe nature.
- g. ACT Chapter #71 Union Contract (if applicable)
- h. ACT Chapter #61 Union Contract (if applicable)

### **3. OBJECTIVES:** To provide the basis for orderly and efficient management of the payment of EDP/HDP. An EDP/HDP Committee will be established to aid in this management. This committee will assist in the Human Resources Office (HRO) by reviewing, on an as needed basis, request(s) for the following:

- a. Identify unusually severe working conditions, physical hardships and hazardous situations.

- b. Eliminate or reduce to the lowest level possible severe working conditions, physical hardships and hazards.
  - c. Assure that situations are promptly reviewed and determinations made on EDP and HP entitlements.
4. RESPONSIBILITIES. By law, federal agencies are required to follow OSHA safety and health standards in order to protect employees from a significant risk of material health or functional impairment that may be experienced because of hazard in the workplace. EDP/Hazard pay shall be discontinued when "safety precautions have reduced the element of hazard to a less than significant level of risk, consistent with generally accepted standards that may be applicable, such as those published by OSHA."
- a. The Adjutant General:
    - (1) Appoint an EDP/HP Committee consisting of management and bargaining unit members.
    - (2) Assure compliance with governing directives.
  - b. Installation/Base/Wing/Unit Commanders
    - (1) Understand the goals of the EDP/HP State program and actively participate in accomplishing these goals.
    - (2) Conduct an annual review of EDP/HP approved work situations.
    - (3) Create a work environment to ensure compliance with EDP/HP plan.
    - (4) Review all EDP/HDP work situation requests prior to EDP/HP committee review.
  - c. Human Resource Office (HRO):
    - (1) Provide advisory and administrative support to the committee.
    - (2) Publicize the EDP/HP program.
    - (3) Render staff assistance concerning this plan to managers, supervisors and technicians.
    - (4) Act on recommendations of the committee.
    - (5) Insure that the appropriate technician payroll office is promptly informed of approved work situations and their corresponding authorized EDP/HP rates.
    - (6) Approve or disapprove work situations for EDP based upon evaluation against defined categories in Appendix A of 5CFR, Part 532, Sections 532.501, 532.511 and subpart E, and recommendations of EDP/HDP committee.

- (7) Approve or disapprove work situations for HDP based upon evaluation against defined categories in Appendix A of 5 CFR, Part 550, Section 550.901 through 907 and recommendations of EDP/HDP committee.

c. Supervisors:

- (1) Periodically inform employees of the EDP/HP Plan.
- (2) Conduct an annual review of EDP/HP approved work situations.
- (3) Continually review the work environment for work situations that present a hazard or unusually severe working conditions. Document such and submit on AZSP Form 532-1 (appendix A, attachment 1) for Unit coordination to the ANG Public Health Technician, Occupational Safety Specialist, Bio-Environmental Engineering Technician, Environmental Coordinator, and for Army the State Safety Manager and Environmental Protections Specialist, to the EDP/HP Committee through AZAA-HRO-C. Requests must provide specific Information.
- (4) Assure that pay entitlements to EDP or HP are recorded on Time and Attendance cards when authorized and performed.

d. Technician: Advise immediate supervisor when hazards or unusual severe working conditions exist.

5. DEFINITIONS:

- a. Environmental Differential Pay: Additional pay that has been authorized for wage system technicians as specified in Appendix A, 5 CFR, Part 532, for a duty involving unusually severe hazards or unusually severe working conditions.
- b. Differential rate: This is the hourly rate payable and is computed by multiplying the percentage for the described exposure times the second step/hourly rate for grade WG-10 on the current non-supervisory wage schedule for the area regardless of the grade of the individual. The rate will be rounded to the nearest cent.
- c. Hot work category: This is work in a confined space which creates cramped working conditions such as: Jet engine intake and exhaust, fuel cells or fuel cell compartments, crawlways inside of wings, tail booms or empennage sections where movement is severely restricted. If an employee is in an area where he/she can readily step outside or otherwise remove himself/herself from the high temperature at the first signs of distress, he/she is not confined in the sense intended by the EDP and is not entitled to the differential.
- d. Close proximity: The employee is subject to the same degree of personal injury as the person who is actually conducting the hazardous operation.

e. Practically Eliminated – The term “practically eliminated” does not require a complete or absolute elimination of potential injury. This term does not mean “virtually”, this would require that a higher standard is to be applied than is required in the regulation. The term is more correctly defined as “almost” and is more consistent with the intent of the language of the regulation. The regulation only requires that potential injury be “practically eliminated” and as such, total elimination of the hazard not required, nor expected (*Arbitration decision, FMCS Case NO. 95-07381*).

6. ORGANIZATION AND FUNCTIONS OF THE EDP/HP COMMITTEE:

a. A single committee will be appointed to make EDP/HP recommendations for the Army and Air National Guard. The committee will be headed by HRO-C who will select an alternate chairperson to act in their absence. The committee shall consist of twelve (12) voting members. Six (6) voting members, one of which must be a Union representative, when situations involve 161 ARW or Army National Guard, shall constitute a quorum.

b. The organization of the committee will be as follows:

(1) Phoenix and Tucson ANG:

Public Health Technician  
Occupational Safety Specialist “or” Safety Officer (not both)  
Bio-Environmental Engineering Technician  
Environmental Coordinator

(2) Army NG:

State Safety Manager  
Environmental Protection Specialist

(3) ACT Union:

One representative each (Army and Air)

(4) Human Resource Office (HRO): **(Non-Voting Positions)**

Position Classification Specialist  
Labor Relations Specialist

c. EDP/HP Committee Functions:

- (1) Evaluate situations submitted for review against appropriate criteria.
- (2) Explore possibilities for elimination or reduction of the hazardous or severe working conditions that exist.
- (3) Make recommendations on eligibility for EDP or HP to the HRO
- (4) Notify parties submitting situations of determinations rendered.
- (5) Annually review all current approved situations to determine whether the hazard or physical hardship has been practically eliminated to the degree which would preclude continuance of payment of the differential.

7. SUBMISSION OF SITUATIONS TO EDP/HP COMMITTEE: AZSP FORM 532-1 (EDP/HP Situation Form) appendix A attachment 1, will be used to submit to the committee through ANG Public Health Technician, Occupational Safety Specialist, Bio-Environmental Engineering Technician, Environmental Coordinator and for the Army, the State Safety Manager and Environmental Protection Specialist to AZAA-HRO-C any situation that poses a potential or real hazard, physical hardship or working condition of an unusually severe nature. The form will be completed as follows:

- a. Type of Exposure: Indicate the kind of exposure involved; for example, cold weather, dirty work, cramped quarters, explosives, etc. Reference Appendix A, 5 CFR, Part 532 and Appendix A, 5 CFR, Part 550, subpart 1.
- b. Duration of Exposure: Give the estimated period of time during which the exposure will continue to exist.
- c. Work Situation: Describe the situation or condition that exists as precisely and clearly as possible. See examples of EDP work situations in this book. All EDP/HP requests that are vague will be returned to requester.
- d. Impact: Give the approximate number of employees affected by the proposed situation by classification and grade levels.
- e. Whom to contact for additional information: This should be a technician in authority over the area where the situation exists or who is well qualified to advise the committee concerning the situation.
- f. Submit AZSP FORM 532-1 thru: (AIR UNITS) Public Health Technician, Occupational Safety Specialist, Bio-Environmental Engineering Technician, and the Environmental Coordinator; (ARMY UNIT) Environmental Protection Specialist and the State Safety Manager, to the HRO, Attn: AZAA-HRO-C. In addition, attach any accident records and safety directives, if applicable. Include the hazard classification if situation involves explosives or incendiary devices. Indicate whether protective clothing/equipment is required.

8. PROCESSING EDP/HP DETERMINATION:

- a. The Recorder will enter the recommended situations in the EDP/HP Situation Log. The Recorder will furnish committee members a copy of each situation form submitted for consideration prior to a scheduled meeting. A case file will be established for each situation. Approved situations will become an attachment to the plan. Disapproved situations will be filed in the HRO functional files system.
- b. Committee members will review the situation form(s) and related criteria prior to the scheduled meeting. HRO Classification Specialist will notify supervisor prior to the meeting of any inadequate requests and/or additional information required.
- c. All EDP/HR requests submitted by the supervisor and/or requester will be required to present a briefing to the Committee members during a formal EDP/HP Committee meeting. This forum will allow Committee members to ask specific questions regarding the request.

- d. All EDP/HDP requests may be subject to an **on-site visits** by the Committee if follow up is required.
- e. The committee will meet at the call of the Chairperson or alternate Chairperson and make a recommendation by majority vote after thorough examination of the situation, criteria and other related facts. In most cases, the recommendation will not be made until after an on-site visit. Final approval will be made by the HRO and/or ADJUTANT GENERAL.
- f. Negative determinations will be documented and filed as indicated above. Parties who submitted the situation form will be notified formally of the denial.
- g. Approved situations will be documented on AZSP FORM 532-2 (EDP/HP determination Form) and become an attachment to this plan. Certifying officials and payroll sections will be furnished copies of approved situations.
9. CONTROL NUMBERING FOR APPROVED WORK SITUATIONS: The Human Resource Office (HRO) will assign a state number to all approved work situations using the following method. The first digit will indicate the location, i.e., "A" for Army National Guard, "P" for Air National Guard in Phoenix and "T" for Air National Guard in Tucson. The next two numbers will indicate the calendar year of approval. The fourth digit would indicate the consecutive control number assigned.
10. OFFICIAL FILE COPY OF ENVIRONMENTAL DIFFERENTIAL PAY/HAZARD PAY (EDP/HP) PLAN: The Recorder will maintain the official, current status plan to include all approved and disapproved situations.
11. APPROVED ENVIRONMENTAL DIFFERENTIAL PAY SITUATIONS: See Section 2. To administratively process EDP/HP pay, see Section 3. All previously issued instructions or plans in conflict with the above are hereby rescinded.
12. TERMINATION OF EDP/HP DIFFERENTIAL PAY: Safety precautions have reduced the element of hazard to a less than significant level or risk, consistent with generally accepted standards that may be applicable, such as those published by OSHA, Department of Labor. Protective or mechanical devices have adequately alleviated physical discomfort or distress.
- a. OPM specified two conditions that must exist before payment of EDP/HP differential may be approved by an agency:
- (1) The actual circumstances of the specific hazard or physical hardship have changed from that taken into account and described in the position description.
  - (2) Using the knowledge, skills and abilities that are described in the position description, the employee cannot control the hazard or physical hardship; thus the risk is not reduced to a significant level.

the Human Resource Office (HRO). Users  
are invited to send comments and suggested  
improvements to the Office of the Adjutant  
General, Attn: AZAA-SP, 5636 E. McDowell  
Road, Phoenix, AZ 85008-3495

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BY THE ORDER OF THE GOVERNOR:

DAVID P. RATACZAK, Major General, AZ ARNG  
The Adjutant General

DISTRIBUTION: Updated 31 JULY 2001

AZAA-CS-1	AZAA-PFI-1	AZAA-PR-1	AZEA-1	AZPA-1
AZAA-PT-1	AZAA-PFC-1	AZAA-SP-1	AZYA-1	AZRA-1
AZAA-LOM-1	AZAA-PFC-PT-1	AZAA-SPM-1	OMS#1-1	AZTA-1
AZAA-LOM-C-5	AZAA-PFL-S-1	AZAA-SPM-ED-1	OMS#2-1	AZVA-1
AZAA-AV-1	AZAA-PFL-SW-1	AZAA-SPL-1	OMS#3-1	AZGA-1
AZAA-AV-LS-1	WAATS-SO-1	AZAA-FMO-1	OMS#4-1	AZJA-1
AZAA-AV-AS-1	WAATS-ADS-1	AZAA-PRT-2	OMS#5-1	AZXA-1
AZAA-PFO-1	WAATS-CMD-1	AZNA-1	OMS#6-1	AZKA-
WAATS-AMS-1			OMS#8-1	
HQ ANG -1	161ARW/RM-1	162FW/OG-1	107ACS/CC-1	
ESSO-1	161ARW/SE-2	162FW/CEF-1	107ACS/CCS-1	
161ARW/SV-1	162FW/LG-15	107ACS/DO-1	107ACS/LG-1	
161ARW/CC-1	161ARW/AC-1	162FW/SPTG/CC-1	162FW/AC-1	
161ARW/OG-1	161MED CLIN/SGA-1	162FW/LS/LGS-1	162FW/SE-1	
161ARW/LG-10	162 FW/CC-2	162FW/FM/AC-1	162MED CLIN/SGA-1	
161ARW/CC/CS-1	162FW/HQ/CC-1	162 FW/CC/CS-1	ACT Chapter 61	
ACT Chapter 71				



## SECTION 2

### LIST OF APPROVED ENVIRONMENTAL DIFFERENTIAL PAY SITUATIONS

<u>Number</u>	<u>Work Situations</u>	<u>Category</u>	<u>Percent</u>
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#### AIR NATIONAL GUARD - 162 FW - TUCSON:

T711	Explosives and Incendiary Material (Munitions)	3	4%
T712	Explosives Low Degree Hazard; (Egress).	3	4%
T744	Explosives and Incendiary Material (Munitions)	3	4%
T871	Hot Work; Fuels Systems Handling (F-16, EPU) Maintenance (Hydrazine Emergency Response)	6	4%
T872	Work in Fuel Storage Tanks; (F-16 Fuel Cell)	9	8%
T901	Explosives Low Degree Hazard; (Life Support)	3	4%
T921	Explosives Low Degree Hazard; (Survival Equip)	3	4%
T922	Poisons (Toxic Chemicals) High Degree Hazard; Hydrazine Facility	4	8%
T923	Explosives & Incendiary Material (EOR) & Poisons Poisons (Toxic Chemicals) (EOR) Low Degree Hazard	3 & 5	4%

#### AIR NATIONAL GUARD - 161 ARW - PHOENIX:

P765	Work in Fuel Storage Tank; (KC-135E) (Fuel Cell)	9	8%
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#### ARMY NATIONAL GUARD - AASF #2 / WAATS - MARANA:

A901	Ground Work Beneath Hovering Helicopter	2	15%
A902	Fire Fighting Low Degree	10	8%
A903	Flying (Helicopter Maintenance)	1	100%

#### ARMY NATIONAL GUARD - AASF #1 - PHOENIX:

A904	Ground Work Beneath Hovering Helicopter	2	15%
A905	Fire Fighting Low Degree	10	8%
A906	Flying (Helicopter Maintenance)	1	100%

ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T711

162 FW Explosive and Incendiary Material – Low Degree Hazard (Munitions)

WORK SITUATION:

Aircraft Munitions Storage Element  
162<sup>nd</sup> Fighter Wing (ANG)  
P.O.BOX 11037, Tucson, AZ 85734-1037

Individuals working with or in close proximity to explosives and incendiary material which are required to load and unload munitions items on/off trailers and delivery to/from the flight line. Assemble and inspect single cartridge into practice bombs, inspect 2.75-inch Rockets, inspect/assemble chaff, flares and process 20mm ammunitions. Also inspect and assemble live explosives such as bombs, booster and fuses to include performing continuity checks on missiles.

CATEGORY: Part II; Category 3, Explosives and Incendiary Material-Low Degree Hazard; 4%.

OFFICIAL AUTHORIZED TO ASSIGN EMPLOYEES AND APPROVE PAYROLL DOCUMENTATION: Maintenance Squadron Commander, Munitions Officer, Equipment Maintenance Flight Supervisor and Munitions Supervisors.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Two (2) WS-10 Supervisors, Two (2)WS-09, One (1) WG-11, and twenty-five (25) WG-10.

AVERAGE LENGTH OF EXPOSURE: 6 to 7 hours per day.

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T712

162 FW – Explosives -Low Degree Hazard (Egress)

WORK SITUATION: Aircraft Maintenance Branch (Egress)  
162nd Fighter Wing (ANG)  
P.O. Box 11037, Tucson, AZ 85734-1037

Works in close proximity to explosives, removes all explosive devices such as initiators, thrusters, canopy remover and catapults. Hazards include possible powder burns and fired projectiles.

CATEGORY: Part II, Category 3, Explosives, Low Degree Hazard 4%.

OFFICIALS AUTHORIZED TO APPROVE PAYROLL DOCUMENTATION:  
Superintendent, Aerospace Systems Supervisor, Field Maintenance Supervisor and Maintenance Officer.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Egress Systems Supervisor, WS-09, Fourteen (14) Egress Mechanics, WG-10, and Two (2) WL-10.

AVERAGE LENGTH OF EXPOSURE: 2 hours per day.

Updated: 31 Jul 2001

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T744

162 FW – Explosives and Incendiary Material - Low Degree Hazard

WORK SITUATION: Aircraft Sortie Generation Flights  
162nd Fighter Wing (ANG)  
P.O. Box 11037, Tucson, AZ 85734-1037

Weapons maintenance technicians are required to work in close proximity of explosives and incendiary material. Duties involve loading and unloading of aircraft with 20mm ammunition, bombs, dispensers, missiles, chaff, flares and ejector cartridges; arm and de-arm aircraft, maintenance of jammed ammunition systems.

CATEGORY: Part II; Category 3, Explosives and Incendiary Materiel - Low Degree Hazard; 4%.

OFFICIALS AUTHORIZED TO ASSIGN EMPLOYEES AND APPROVE PAYROLL DOCUMENTATION: Logistic Commander, Logistics Squadron Commander, Sortie Generation Flight Commander, Sortie Generation Flight Production Supervisor, Weapons Element Supervisor.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Four (4) WS-10 Supervisors, Four (4) WS-09 Supervisors, Seventy-Four (74) WG-10 Employees.

AVERAGE LENGTH OF EXPOSURE: 5 to 6 hours per day.

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T871

162 FW Hot Work; Fuels Systems Handling (F-16 EPU) Maintenance

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section  
162nd Fighter Wing Logistics (ANG)  
P.O. Box 11037, Tucson, AZ 85734-1037

Technicians assigned to Fuel Shop are required to work on the F-16 emergency power unit (EPU), during periods when outside air temperatures (OAT) exceed 100 degrees Fahrenheit. Fuel personnel are required to service, handle, purge, test, clean-up, decontaminate and neutralize any spills which occur. During this process protective clothing results in an unusual degree of discomfort and potential for heat stress, where such exposure is not practically eliminated by the mechanical equipment or protective devices being used. Many of these maintenance operations preclude technicians from leaving aircraft to relieve potential heat stress.

CATEGORY: PART I, CATEGORY 6, HOT WORK, 4%; F-16 (EPU)

OFFICIALS AUTHORIZED TO APPROVE PAYROLL DOCUMENTATION:  
Superintendent, Intermediate Maintenance. Supervisor Aerospace system.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Fuel Shop Supervisor, WS-09, One (1) Fuel Shop Assistant Shop Supervisor, WS-08, One (1) WL-10, Eighteen (18) Fuel Technicians, WG-10.

AVERAGE LENGTH OF EXPOSURE: Daily During Hot Weather.

EDP/HP DETERMINATION

SITUATION NO. T871

CATEGORY OF EXPOSURE: PART I, CATEGORY 6, HOT WORK, F-16 (EPU)

DIFFERENTIAL RATE: 4%        Hours in Pay Status XX Actual Exposure

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section  
162nd Fighter Wing (ANG)  
P.O. Box 11037, Tucson, AZ 85734-1037

Technicians assigned to Fuel Systems are required to work on the F-16 emergency power unit (EPU), during periods when outside air temperatures (OAT) exceed 100 degrees Fahrenheit. Fuel personnel are required to service, handle, purge, test, clean up, decontaminate and neutralize any spills which occur. During this process protective clothing results in an unusual degree of discomfort and potential for heat stress, where such exposure is not practically eliminated by the mechanical equipment or protective devices being used. Many of these maintenance operations preclude technicians from leaving aircraft to relieve potential heat stress.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: One (1) Fuel Shop Supervisor, WS-09, One (1) Leader, WL-10, Eighteen (18) Fuel Technicians, WG-10.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:  
Superintendent, Intermediate Maintenance. Supervisor Aerospace Systems..

Date on-site review made: Nov 18, 1987

Accident records attached? No Safety report on work situation attached? No  
Protective clothing/equipment required? Yes (If yes, list) See Atch 1

Hazard classification (If involving explosive or incendiary device):  
Appropriate technical instructions:

TACR 66-5	AFR 127-100	AFR 161-30, VOL II
AFOSH Std 127-66	AFOSH Std 48-8	AFOSH Std 48-8
T.O. 00-25-235	AFOSH Std 48-8	AFOSH Std 48-8
T.O. 1F-16A/B-2-49JG-00-1	6J14-11-2	162FW 355-2
T.O. 1F-16A/B-2-49GS-00-1	162FW OPLAN 355-1	
T.O. 1F-16A/B-2-49JG-00-2		
T.O. 1F-16A/B-2-49JG-00-3		

EDP/HP DETERMINATION: DATE OF DETERMINATION: Nov 19 1987

XX Recommend Approval        Recommend Disapproval

## JUSTIFICATION

Technicians assigned to Fuel Shop are required to work on the F-16 emergency power unit (EPU), during periods when outside air temperatures (OAT) exceed 100 degrees Fahrenheit. Fuel personnel are required to service, handle, purge, test, clean up, decontaminate and neutralize any spills that occur. During this process protective clothing results in an unusual degree of discomfort and potential for heat stress, where such exposure is not practically eliminated by the mechanical equipment or protective devices being used. Many of these maintenance operations preclude technicians from leaving aircraft to relieve potential heat stress.

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T872

162 FW – Work in Fuel Storage Tanks (F-16 Fuel Cell)

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section  
162nd Fighter Wing Logistics (ANG)  
P.O. Box 11037, Tucson, AZ 85734-1037

The fuselage fuel cells of the F-16 aircraft are of bladder and integral type construction. Components such as pumps, valves, and connecting lines are assembled and disassembled from the interior of the cell. A defueling, depuddling, and purging process is required to remove fuel and vapors from the cell. Physical entry into the cell is required to repair the cell and repair or replace components. Technicians performing such duties must work in cramped and strained body position. The atmosphere within the tank is toxic requiring use of protective equipment to reduce damage to skin and inhalation of vapors.

When technicians work under conditions requiring a breathing apparatus because all or part of the oxygen in the atmosphere has been displaced (i.e., closed system) by toxic vapors and failure of the breathing apparatus would result in serious injury or death within the time required to leave the full cell, EDP is appropriate. When there is ready access to oxygen and no danger of serious injury or death, EDP is not authorized. Provisions of AFR 127-101 and applicable Technical Orders and Directives will be followed while performing Fuel Cell/Storage Tank Maintenance.

CATEGORY: PART II, CATEGORY 9, WORK IN FUEL STORAGE TANKS (F-16); 8%.

OFFICIALS AUTHORIZED TO APPROVE PAYROLL DOCUMENTATION: LG, Maintenance Officer, Branch Chief and Section Chief.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Fuel Shop Supervisor, WS-09, One (1) Fuel Shop Assistant Shop Chief, WS-08, One (1) Leader, WL-10, Eighteen (18) Fuel Technicians, WG-10

AVERAGE LENGTH OF EXPOSURE: 2 Days per month.

Note: Change from 4% to 8% EDP due to length of exposure slightly increased and safety protection equipment requires a respirator. This was approved by HRO 6 Jan 1995.



EDP/HP DETERMINATION  
SITUATION NO. T872

CATEGORY OF EXPOSURE: PART II, CATEGORY 9, WORK IN FUEL STORAGE  
TANKS (F-16)

DIFFERENTIAL RATE: 8% XX Hours in Pay Status \_\_\_\_\_ Actual Exposure

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section  
162nd Fighter Wing (ANG)  
P.O. Box 11037, Tucson, AZ 85734-1037

The fuselage fuel cells of the F-16 aircraft are of bladder and integral type construction. Components such as pumps, valves, and connecting lines are assembled and disassembled from the interior of the cell. A defueling, depuddling, and purging process is required to remove fuel and vapors from the cell. Physical entry into the cell is required to repair the cell and repair or replace components. Technicians performing such duties must work in cramped and strained body position. The atmosphere within the tank is hazardous requiring use of protective equipment to reduce damage to skin and inhalation of vapors.

When technicians work in conditions requiring a breathing apparatus because all or part of the oxygen in the atmosphere has been displaced (i.e., closed system) by hazardous vapors and failure of the breathing apparatus would result in serious injury or death within the time required to leave the full cell, EDP is appropriate. When there is ready access to oxygen and no danger of serious injury or death, EDP is not authorized. Provisions of AFR 127-101 and applicable Technical Orders and Directives will be followed while performing Fuel Cell/Storage Tank Maintenance.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Fuel Shop  
Supervisor, WS-09, One (1) Fuel Shop Assistant Shop Supervisor, WS-08, One (1)  
Leader, WL-10, Eighteen (18) Fuel Technicians, WG-10

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:  
LG, Maintenance Officer, Branch Chief and Section Chief.

Date on-site review made: Nov 18, 1987

Accident records attached? No Safety report on work situation attached? No

Protective clothing/equipment required? Yes (If yes, list): Respirator is used.

hazard classification (If involving explosive or incendiary device): N/A

Appropriate technical instructions: T.O. 00-25-235, AFR 127-101

EDP/HP DETERMINATION: \_\_\_\_\_ DATE OF DETERMINATION: Nov 19 1987

XX Recommend Approval \_\_\_\_\_ Recommend Disapproval

Updated 31 Jul 2001

## JUSTIFICATION

1. The fuselage fuel cells of the F-16 aircraft are of bladder and integral type construction. Components such as pumps, valves, and connecting lines are assembled and disassembled from the interior of the cell. A defueling, depuddling, and purging process is required to remove fuel and vapors from the cell. Physical entry into the cell is required to repair the cell and repair or replace components. Technicians performing such duties must work in a cramped and strained body position. The atmosphere within the tank is toxic requiring use of protective equipment to reduce damage to skin and inhalation of vapors.

2. When technicians work under conditions requiring a breathing apparatus because all or part of the oxygen in the atmosphere has been displaced (i.e., closed system) by toxic vapors and failure of the breathing apparatus would result in serious injury or death within the time required to leave the full cell, EDP is appropriate. When there is ready access to oxygen and no danger of serious injury or death, EDP is not authorized. Provisions of AFR 127-101 and applicable Technical Orders and Directives will be followed while performing Fuel Cell/Storage Tank Maintenance.

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T901

162 FW – Explosives, Low Degree Hazard (Life Support)

WORK SITUATION:

Life Support Branch  
162nd Fighter Wing  
P. O. Box 11037, Tucson, AZ 85734-1037

Working with or in close proximity to explosives and incendiary material which involves potential injury such as laceration of hands, face, or arms of employees engaged in the operation and possible adjacent employees, minor irritation of the skin, minor burns, and the like; minimal damage to immediate or adjacent work area or equipment being used and wherein protective device and/or safety measures have not practically eliminated the potential for such injury.

CATEGORY: Part II, Category 3, Explosives, Low Degree Hazard 4%.

OFFICIALS AUTHORIZED TO APPROVED PAYROLL DOCUMENTATION: Life Support Supervisor.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Life Support Supervisor, WS-09, Nine (09) Life Support Technicians, WG-09.

AVERAGE LENGTH OF EXPOSURE: 2 to 4 Hours per day.

EDP/HP DETERMINATION  
SITUATION NO. T901

CATEGORY OF EXPOSURE: PART II, CATEGORY 3, EXPLOSIVES AND  
INCENDIARY MATERIAL - LOW DEGREE HAZARD (F-16)

DIFFERENTIAL RATE: 4% Hours in Pay Status XX Actual Exposure \_\_\_\_\_

WORK SITUATION: Life Support Branch  
162nd Fighter Wing (ANG) (TAC)  
P. O. Box 11037, Tucson, AZ 85734-1037

The 162nd Life Support Technicians are required by their job description, to be qualified on the F-16 aircraft ejection seat parachute and survival kit assembly. Duties include seat kit removal, disassembly, inspection, repack and reinstallation. Two technicians (two-person concept) are required to perform the cockpit inspection, removal, and reinstallation of the survival kit and parachute which are an integral part of the aircraft egress system. The above functions require working in close proximity to explosive devices. Survival kits for the F-16 contain explosive cutters which are devices designed to sever reefing line cutters/release lines. Pyrotechnics in the form of Flare Gun Kits A/P 25S-5A, which is a 1.3 Class explosive. The flares are required to be removed during routine survival kit inspection/maintenance, physically inspected IAW T.O. 11A10-26-7 and 14S1-3-51, and then reinstalled in the survival kit assembly prior to it being installed in the aircraft

Working with or in close proximity to explosives and incendiary material which involves potential injury such as laceration of hands, face, or arms of employees engaged in the operation and possible adjacent employees, minor irritation of the skin, minor burns, and the like, minimal damage to immediate or adjacent work area or equipment being used and wherein protective devices and/or safety measures have not practically eliminated the potential for such injury.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Life Support Supervisor, WS-09, Nine (9) Life Support Technicians, WG-09.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:  
Director of Operations, Life Support Supervisor.

Date on-site review made: 21 Feb 90

Accident records attached? No Safety report on work situation attached? No

Protective clothing/equipment required? No (If yes, list) None

Hazard classification (If involving explosive or incendiary device): Low Degree.

Appropriate technical instructions: T.O. 13A5-56-11, and 1F-16A-2-95JG-50-1.

EDP/HP DETERMINATION: DATE OF DETERMINATION: 22 Apr 90

XX Recommend Approval

\_\_\_\_\_ Recommend Disapproval

### JUSTIFICATION

Criteria is working with or in close proximity to explosives and incendiary material which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation and possible adjacent employee, minor irritation of the skin, minor burns and the like, minimal damage to immediate or adjacent work area or equipment being used and wherein protective devices and/or safety measures have not practically eliminated the potential for such injury.

All operations involving handling of explosive and incendiary ordnance material other than small arms ammunition.

Assembly, disassembly, and inspections of primers, fuses, propellant charges, boosters, igniters.

Handling and packing of hand-held signals, smoke signals, and colored marker signals.

Arming/disarming or the installation/removal of any squib, explosive device, of component thereof, connected to or part of a solid propulsion system, including work situations involving removal, inspection, test and installation of aerospace vehicle egress and jettison systems and other cartridge actuated devices and rocket assisted systems or components thereof, when accidental or inadvertent operation of the system or a component might occur.

## ENVIRONMENTAL PAY PLAN

T921

162 FW – Explosives and Incendiary Material -Low Degree Hazard (Survival Equipment)

WORK SITUATION: Survival Equipment Section  
162<sup>nd</sup> Fighter Wing ( ANG )  
P.O. BOX 11037  
Tucson, AZ 85734-1037

Survival Equipment personnel at the 162<sup>nd</sup> Fighter Wing are required to perform inspections, repairs, and complete repacks of F-16 ACES II Recovery parachute assemblies and Drogue chute assemblies. During the complete repack of the ACES II recovery parachute, technicians are required to remove and install two types of explosive devices which are reefing line cutters and Uwars ( Universal Water Activated Release System ) assemblies. Each Recovery parachute is equipped with two reefing line cutters and two Uwars assemblies, which are classified as 1.4S explosives. The complete repack process on the ACES II recovery parachute will normally take 5 to 8 hours.

The Drogue chute assembly is inspected and repacked in the egress section. It is packed in a compartment located in the rear section of the ejection seat. Technicians are required to disengage the drogue compartment door, which entails disconnecting the retaining latch bolted to the drogue gun cartridge. During the removal and installation of the drogue assembly, technicians are facing the drogue gun cartridge and are in close proximity to the seat stab rocket motor, drogue severance cutters, harness release cartridge, spin-up gyro gas generator, mortar cartridge, trajectory divergent rocket, ejection initiators, and inertia reel initiator. All the explosives that technicians are exposed to when working on the drogue chute are classified 1.3C and 1.4S. The complete repack process on the drogue chute assembly will normally take 3 to 4 hours.

CATEGORY: Part II, Category 3, Explosives, Low degree Hazard 4%.

OFFICIALS AUTHORIZED TO APPROVE PAYROLL DOCUMENTATION:  
Fabrication Chief and Survival Equipment Supervisor.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Survival Equipment Supervisor, and Six (6) Survival Equipment Technicians, WG-09.

Updated 31 Jul 2001

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T922

162 FW – Poisons (Toxic Chemicals) - High Degree Hazard (Hydrazine Facility)

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section  
162<sup>nd</sup> Fighter Wing Logistics (ANG)  
P.O Box 11037, Tucson, AZ 85734-1037

Fuel shop technicians are required to work in close proximity and handle hydrazine used as a monopropellant for the F-16 emergency power unit. Hydrazine is a very toxic chemical which has many temporary as well as many long lasting side effects. Exposure to hydrazine depending on the extent of exposure can be fatal. Fuel personnel are required to service, handle, purge, test, clean-up, decontaminate and neutralize any spills which occur. Depending on size of spill or leak, they could be exposed to this agent for as long as 13 hours. Hydrazine EPU maintenance is a required part of their duties.

CATEGORY: Part II, Category 4 Poisons (Toxic Chemicals) High Degree Hazard (Hydrazine).

OFFICIALS AUTHORIZED TO ASSIGN EMPLOYEES AND APPROVE PAYROLL DOCUMENTATION: Superintendent, Intermediate Maintenance, Supervisor Aerospace Systems.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Fuel Shop Supervisor, WS-09, One (1) Fuel Shop Assistant Shop Supervisor, WS-08, One (1) WL-10, Eighteen (18) Fuel Technicians, WG-10.

AVERAGE LENGTH OF EXPOSURE:

EDP/HP DETERMINATION  
SITUATION NO. T922

CATEGORY OF EXPOSURE: PART II CATEGORY 4, POISONS (TOXIC  
CHEMICALS) HIGH DEGREE HAZARD (HYDRAZINE)

DIFFERENTIAL RATE: 8% Hours in Pay Status: 1-4 hours, 6 times per month

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section  
162nd Fighter Wing Logistics (ANG)  
P.O. Box 11037, Tucson, AZ 85734-1037

Fuel shop technicians are required to work in close proximity and handle hydrazine used as a monopropellant for the F-16 emergency power unit. Hydrazine is a very toxic chemical which has many temporary as well as many long lasting side effects. Exposure to hydrazine depending on extent of exposure can be fatal. Fuel personnel are required to service, handle, purge, test, clean-up, decontaminate and neutralize any spills which occur. Depending on size of spill or leak, they could be exposed to this agent for as long as 13 hours. Hydrazine EPU maintenance is a required part of their duties.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: One (1) Fuel Shop Supervisor, WS-09, One (1) Fuel Shop Assistant Shop Supervisor, WS-08, One (1) WL-10, Eighteen (18) Fuel Technicians, WG-10

Officials Authorized To Certify To Exposures For Pay Purposes:  
Superintendent, Intermediate Maintenance. Supervisor Aerospace Systems.

Date on-site review made: Nov 18, 1987

Accident records attached? No Safety report on work situation attached? No

Protective clothing/equipment required? Yes (If yes, list) See Atch 3

Hazard classification (If involving explosive or incendiary device): Appropriate technical instructions:

TACR 66-5	AFR 127-100	AFR 161-30, VOL II
AFOSH Std 127-66	AFOSH Std 48-8	AFOSH Std 48-8
T.O. 00-25-235	AFOSH Std 48-8	AFOSH Std 48-8
T.O. 1F-16A/B-2-49JG-00-1	6J14-11-2	162FW 355-2
T.O. 1F-16A/B-2-49GS-00-1	162FW OPLAN 355-1	
T.O. 1F-16A/B-2-49JG-00-2		
T.O. 1F-16A/B-2-49JG-00-3		

EDP/HP DETERMINATION: DATE OF DETERMINATION: Nov 19 1987  
\_\_\_\_\_ Recommend Approval XX Recommend Disapproval



## JUSTIFICATION

1. EDP/HP Work Situation Hydrazine, H-70 was reviewed by the EDP/HP Committee. The protective equipment listed in AFOSH Standard 48-8, Atch 6, Table A6-1, see Atch 1, provides more than adequate protection against hydrazine. However, since this work situation is regular and recurring, it will be summarized in detail.
2. For purposes of health hazard evaluation and health protection, H-70 hydrazine exposure to an unprotected individual could occur via inhalation of vapor or through skin absorption of the liquid. Personnel working with hydrazine are provided with and are required to use proper protective equipment to prevent exposure via these routes. Supplied air respirators provide protection from inhalation of vapor. Rocket fuel handler protective equipment is impregnable to hydrazine and thus prevents skin contact.
3. Air sampling surveys have indicated that hydrazine vapor concentrations during tank maintenance could reach up to two parts per million (during tank top-off). This concentration does not present an immediate hazard and, in reality, is immaterial since technicians wear respiratory protection. The Immediately Dangerous to Life or Health (IDLH) vapor concentration for hydrazine has been established at 80 parts per million (ppm). This concentration is the maximum level from which one could escape within 30 minutes without any escape-impairing symptoms or any irreversible health effects. Therefore, even if the respiratory protective equipment were to fail, the technician would not be exposed to IDLH vapor concentrations.
4. Contrary to popular belief, hydrazine is not a human carcinogen. It has caused tumors in specific species of mice, yet under the same conditions, has not caused tumors in other species of mice. In light of such conflicting test data, the chemical must be treated with respect and the 8-Hour Time Weighted Average exposure criteria (discussed in the next paragraph) has been established with the cancer potential incorporated.
5. Referencing "exposure tolerance" per AFOSH Std 48-8. The implication is that "tolerance" is a vapor concentration which must not be exceeded even momentarily. Such is not the case. The "tolerance" referred to is the 8-Hour Time Weighted Average concentration (8-Hr TWA). The 8-Hr TWA is the time weighted average concentration for a normal 8 hour workday or 40 hour workweek to which nearly all technicians may be repeatedly exposed, day after day, without adverse effects. The 8-Hr TWA for hydrazine is 0.1 ppm. A simple example should explain the 8-Hr TWA concept. If a technician deals with hydrazine without respiratory protection several times per week and his exposure is 1 ppm for four hours and zero ppm for 4 hours, his 8-Hr TWA exposure would be 0.5 ppm. For this case, since he dealt with the hydrazine frequently and did not use respiratory protection, he routinely exceeded the 0.1 ppm 8-Hr TWA exposure and corrective measures, such as respiratory protection or mechanical ventilation, would be in order.

However, if this same individual wore respiratory protection, his 8-Hr TWA exposure would be zero. The time weighted average concentration outside of his protective equipment would still be 0.5 ppm, but since protective equipment was used he is not exposed to any vapor and his 8-Hr TWA exposure would be zero.

It should be pointed out that many industries rely strictly on the 8-Hr TWA as a means of worker "protection". That is, if the 8-Hr TWA is not exceeded, they do not have to provide respiratory protection or mechanical ventilation. The Air Force, however, takes a stricter approach and provides protective equipment when there are vapors in the area - even though the 8-Hr TWA of 0.1ppm may not be exceeded.

6. The Daeger tube does not measure down to the "tolerance level" listed in AFOSH Std 48-8, Atch 2. As discussed in the above paragraph, this "tolerance level" is not a momentary hazardous concentration that must not be exceeded. It is an average. The Daeger tube is not used to determine the 8-Hr TWA; it is only used to detect hydrazine vapor concentrations over a short period of time (approximately one minute). Therefore, the fact that the Daeger tubes do not detect down to 0.1 ppm is inconsequential. The Daeger tubes measure down to 0.25 ppm and this is sufficient for the task performed and more than sufficient to measure the IDLH concentration of 80 ppm. In addition, during the hydrazine related work tasks, respiratory protection is worn and therefore no vapor is inhaled.

7. Referencing DODPM, Section G, Para 20361 entitlements and 20362 requirements, a military entitlement will be paid to military members without regard to exposure to hazardous materials. This incentive pay is not to be confused or compared to the Environmental Differential Pay program which is administered under OPM/NGB directives and requires worker exposure to hazardous materials or conditions that can not be controlled or eliminated by protective, engineering controls, etc.

8. Environmental Differential Pay is not given if a potentially hazardous material is used - it is given if proper protective equipment cannot practically eliminate the hazard. Personnel in this situation are provided with maximum protection. Both the inhalation hazard and skin absorption hazard have been addressed (that is, personnel have respiratory and skin protection). Therefore, the payment of differential pay is not warranted. We will continue to evaluate EDP situations in accordance with OPM/NGB philosophy concerning technician exposure.

3 Atch

1. AFOSH Standard 48-8, Atch 6
2. Table A6-1
3. EDP/HP Situation Form

MARY E. JEFFRIES, Col, AZ ANG  
Human Resources Officer

Addition: The EDP authorization was based on hot work caused by the protective clothing during service of the EPU and during response to leaks and spills. It was submitted for toxic chemicals but quantification of exposure precluded approval.

EDP/HP DETERMINATION  
SITUATION NO. T923

CATEGORY OF EXPOSURE: PART II, CATEGORY 3, Explosive and Incendiary Material, Low Degree Hazard

CATEGORY OF EXPOSURE: PART II, CATEGORY 5, (Toxic Chemicals), Low Degree Hazard

DIFFERENTIAL RATE: 4% Hours in Pay Status: 3-6 Hour Daily

WORK SITUATION: Aircraft Generation Squadron, Support Section  
162<sup>nd</sup> Fighter Wing, Logistics (ANG)  
1650 E. Perimeter Way, Tucson ,AZ 85706-6052

A six man team consisting of three aircraft mechanics and three weapons end of runway (EOR) crew members are required to work in close proximity to F-16s that are loaded with several types of explosives and utilize a hydrazine propelled emergency power unit (EPU) for back up electrical power in the case of generator failure. The three members weapons crew arms explosives that include 20mm ammunition, BDU-33 training bombs, chaff/flare dispensers, training missiles, and explosive ejector cartridges. The three member aircraft mechanics crew performs critical last chance inspection for mission panels, fasteners, safety pin removal, and other defects of the aircraft, that if go undetected would be detrimental to the safety of the aircraft and pilot during flight. These six crew members are exposed to the same hazards five days a week involving approximately sixty sorties per day, Monday through Friday, and also one weekend a month during the monthly 162FW UTA. This six member crew is continuously exposed to each aircraft a minimum of five minutes during which the aircraft are armed with explosive munitions and the EPU safety pin has also been removed (so the system will activate during an emergency power loss). There is no other area on the base where all of the safety devices have been removed preparing the aircraft for flight, where individuals must be in and around each aircraft for five minutes, unprotected from these dangers.

IMPACT: 3- WG-10 Aircraft Mechanic Technicians per work shift  
3- WG-10 Aircraft Weapons Technicians per work shift

WHON TO CONTACT FOR ADDITIONAL INFORMATION:

NAME: SMSgt Joseph D. Koughn, Duty Phone: DSN: 924-6569

TITLE: Support Flight Supervisor

WORK LOCATION:

End of Runway (EOR), last chance area where the aircraft are thoroughly inspected in conjunction with weapons arming: Aircraft Armament Activation (ARM).

ACCIDENT RECORDS ATTACHED:

YES, (On file at 162FW & Human Resource Office)

SAFETY DIRECTIVES ATTACHED:

T.O.1F-16A-7WC-1-21, Card #2.005.

Warning: Stay clear of forward firing ordnance. Firing of ordnance can result in serious injury or death.

PROTECTIVE CLOTHING/EQUIPMENT REQUIRED:

Hearing Protection, gloves and eye protection.

HAZARD CLASSIFICATION IF SITUATION INVOLVES EXPLOSIVES OR INCENDIARY DEVICE:

1.4/1.3 Category explosives and incendiary materials of low degree hazard.

Close proximity: This six member crew, while accomplishing in-depth inspections and arming weapons while assigned EOR duties are subjected to the same hazards, by virtue of their close proximity 3 to 6 hours a day as hazardous explosive operations are conducted in conjunction with in-depth inspections with an armed EPU in the same location, averaging 60 aircraft per day.

DIFFERENTIAL RATE: 4%

DESCRIBE WORK SITUATION:

A six man team consisting of three aircraft mechanic technicians' and three weapons crew members are required by Technical Direction to be assigned End-of-Runway (EOR) inspection duties in direct support of daily organizational and mission requirements, working in close proximity of explosive and incendiary materials and an emergency power unit (EPU). The location of the EOR area is an extremely small area with an average of 60 sorties a day moving through it. At any time as many as six to eight aircraft can be in this area awaiting inspections and arming. This exponentially increases the potential of injury to personnel due to the close proximity of personnel arming aircraft and due to running aircraft engines. The EPU can activate without warning if the generator fails, endangering all personnel in the area. Since December of 2000, five personnel have been sent to the hospital requiring treatment after being around an aircraft that has had an EPU activate.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE:

3 Aircraft Mechanic personnel per day on EOR Crew  
3 Weapons Mechanic personnel per day on EOR Arm Crew

ACCIDENT RECORDS ATTACHED: Yes, (On file at 162FW & HRO)

SAFETY REPORT ON WORK SITUATION ATTACHED: YES (On file at 162FW & HRO)

HAZARD CLASSIFICATION (IF INVOLVING EXPLOSIVE & INCENDIARY DEVICE):

1.4/1.3 Category Explosives and incendiary materials of low degree hazard.

APPROPRIATE TECHNICAL INSTRUCTIONS:

ANGI 21-1-1, 21-102, 1F-16 (A,B,C,D) –6WC-1, 1F-16 (A,B,C,D) –33-1-2CL-100 T.O. 42B1-1-18, Material Safety Data Sheet Information, 1F-16 (A, B, C, D) –6WC-1, 1F-16 (A,B,C,D) –33-1-2CL-100

JUSTIFICATION:

The EOR operation at the 162FW is a very unique situation. It has a six member EOR team that is dedicated to the safety of the aircraft and pilots. The 162FW flies the oldest F-16s in the USAF inventory. Due to the age of the aircraft the systems don't contain many of the redundant systems that the newer F-16s are built with. Most of the 162FW's aircraft are 1978 to 1982, block 10.15 aircraft that have a single generator. If this generator fails it will cause the EPU to activate. The newer F-16s have 2 generators and this type of emergency is significantly reduced. Because of

the close proximity of this entire process in EOR, all six crew members are at risk if an EPU activates. The area where the 162FW conducts arming and de-arming is extremely small and can only hold six F-16s. On average it takes approximately five minutes to inspect and arm each aircraft. The six-member team stays close together for support as they prepare each aircraft to fly. With the 162FW conducting 60 or more sorties a day it makes it very difficult to function even if nothing goes wrong with the aircraft. When you also Add the summer temperatures of over 105 degrees to this equation, and this area has an extremely high potential for risk of an injury or exposure.

### **Associated Hazards (Explosives)**

Aircraft mechanic technicians are required by technical data instructions and job description to accomplish End-of-Runway (EOR) inspection in conjunction with Weapons' personnel arming F-16 aircraft. The F-16 aircraft are armed in isolated areas, removed from unessential personnel and resources because of the potential for uncommanded jettison of explosives and or incendiary materials when the jettison protection devices are removed prior to flight. The aircraft areas for arming in conjunction with EOR inspections are in the same area at the end of each active runway. Aircraft mechanic personnel accomplish their EOR inspection within close proximity to the weapon crews during arming procedures, which during the removal or installation of the jettison protection devices will not eliminate the potential for injury to the support personnel in the adjacent area. This injury potential to the aircraft mechanic technicians is of the same degree of injury as to the weapons personnel responsible for conducting the hazardous operations. After the hazardous operation of aircraft arming is completed, and with no safety devices installed for the jettison of explosives or incendiary materials, the support section aircraft mechanic technicians must return to the unprotected and armed aircraft in the last chance area to complete their EOR inspections. With an average of five minutes per aircraft to inspect for any last minute problems, all EOR crewmembers have the same potential for injury or exposure.

### **Associated Hazards (Hydrazine)**

The average of sixty aircraft sorties a day exponentially increases the potential of injury to personnel due to their close proximity to aircraft with an EPU that is activated when an aircraft has an electrical system malfunction. The wear of proper protective equipment, (i.e., air breathing packs, body suits or face shields) while performing EOR duties is not practical due to mobility and visibility restrictions presented around the launching of running aircraft. It also presents a problem to the aircraft, as this equipment could be sucked into the intake of the engine if dislodged from one of these EOR crewmembers, causing a mishap to the aircraft or injury to the EOR member. Often the only indication of an EPU activation or potential leak of hydrazine is by pilot notification (using hand signals) that the generator has failed, the strong smell of ammonia from the EPU exhaust, or the Hydrazine Detector Pellet on the right hand underside of the aircraft wing that changes to a purple color indicating exposure to hydrazine.

In all three cases, the likelihood of an EOR crewmember being exposed is very high due to the close proximity of the aircraft. Aircraft mechanic technicians and weapons arm crews are in constant exposure with this system. These crewmembers have been exposed to hydrazine during recent EPU activation's in the past quarter and have been sent to the hospital for observation. Factors contributing to a greater number of EPU activation's are older F-16 aircraft with minimal redundant electrical system components, student pilots unfamiliar with proper switch position and or procedures: (i.e. placing EPU switch in wrong position causing EPU to inadvertently activate on block 10/15 aircraft). Hydrazine is very a toxic chemical, which has many temporary as well as many long lasting side effects. Exposure to hydrazine depending on extent of exposure can be fatal. EOR crews exposed to even the EPU exhaust, smell the ammonia and may have to undergo hospital admission, several blood tests, and medical evaluations. All of these factors along with the unique situation at the 162FW for specializing this

six member crew and the aspect of local operation, deserve special consideration and compensation for EDP/HDP at 4%.

ATCH#1

EDP/HDP Determination:4% Date of Determination:12 July 2001

XXX Recommend Approval \_\_\_\_\_Recommend Disapproval

HAZARD CLASSIFICATION (IF INVOLVING EXPLOSIVE & INCENDIARY DEVICE):

1.4/1.3 Category Explosives and incendiary materials of low degree hazard.

APPROPRIATE TECHNICAL INSTRUCTIONS:

ANGI 21-101, 21-102, IF-16 (A,B,C,D) –6WC-1, 1F-16 (A,B,C,D) –33-1-2CL-100, T.O. 42B1-1-18, Material Safety Data Sheet Information, 1F-16 (A,B,C,D) –6WC-1, 1F-16 (A,B,C,D) –33-1-2CL-100

JUSTIFICATION:

The EOR operation at the 162FW is a very unique situation. It has a six member EOR team that is dedicated to the safety of the aircraft and pilots. The 162FW flies the oldest F-16s in the USAF inventory. Due to the age of the aircraft the systems don't contain many of the redundant systems that the newer F-16s are built with. Most of the 162FW's aircraft are 1978 to 1982, block 10/15 aircraft that have a single generator. IF this generator fails it will cause the EPU to activate. The newer F-16s have 2 generators and this type of emergency is significantly reduced. Because of the close proximity of this entire process in EOR, all six crewmembers are at risk if an EPU activates. The area where the 162FW conducts arming and de-arming is extremely small and can only hold six F-16s. On average it takes approximately five minutes to inspect and arm each aircraft. The six member team stays close together for support as they prepare each aircraft to fly. With the 162FW conducting 60 or more sorties a day it makes it very difficult to function even if nothing goes wrong with the aircraft. When you also add the summer temperatures of over 105 degrees to this equation, and this area has an extremely high potential for risk of an injury or exposure.

//Signed//

MICHAEL R. SMITH, COL, AZ ANG  
Human Resource Officer

ENVIRONMENTAL DIFFERENTIAL PAY PLAN  
P765  
161 ARW – Work in Fuel Storage Tank (KC-135E Fuel Cell)

WORK SITUATION: Aircraft Maintenance Section (Fuel Cell Repair Shop)  
161<sup>st</sup> Air Refueling Wing (ANG)  
2001 S. 32<sup>nd</sup> Street  
Phoenix, AZ 85034

All unit aircraft have integral wing tanks with additional bladder body tanks. Mechanics must enter the fuel cells through a limited number of access ports each of which measures approximately 10 x 17 inches. Individuals who are small in physical stature are usually assigned fuel cell repair responsibilities because of the small access ports and restricted work area within the tanks. The restrictive conditions inside the fuel cells readily complicates emergency egress in the event of equipment failure or sickness. There are 16 individual fuel cells in each assigned aircraft. These cells are only entered when fuel leaks exist or when other aircraft maintenance is required within the cell itself. Frequent Exposure to the hazardous environment within aircraft fuel tanks is experienced by mechanics assigned to the fuel cell shop. Approximately 6 man-days per month involve working inside aircraft fuel tanks.

The hazard is encountered when entering fuel tanks. Even though the cells have been completely drained and purged, residues remain that deplete oxygen supply. These vapors are detrimental to humans if exposed within confined areas even if only for a few minutes. Internal fuel cell maintenance, therefore, must be a two man job to insure immediate survival procedures in case of an equipment malfunction. Protective devices such as proper clothing, ventilation and breathing equipment is provided by the Air Force to effect safe fuel cell maintenance under normal circumstances. Failure of equipment, however, would create an emergency situation and expose the technicians to hazardous fumes. Exposure to the skin is limited by providing special purpose clothing.

Even though extensive precautions are taken to purge fuel systems of residual fuel there generally remains sufficient quantities of fuel within the pores of the tank wall to render the cell interior potentially hazardous. Personnel who are required to perform fuel cell duties primarily enter fuel tanks for the following purposes. (1) To change valves and fuel pumps and (2) Seal leaks in integral and bladder tanks.

CATEGORY: Part II, Category 9 – Fuel Systems Repair; 8%.

OFFICIAL AUTHORIZED TO ASSIGN EMPLOYEES AND APPROVE PAYROLL DOCUMENTATION: Deputy Commander for Maintenance, Maintenance Officer.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Two, (2) Fuel Cell Repair Technicians.

AVERAGE LENGTH OF EXPOSURE: 1 to 4 Hours, Six Times per Month  
Updated 19 May 1998

PROTECTIVE CLOTHING/EQUIPMENT REQUIRED: Yes (If yes, list): Special clothing.

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A901

### AASF #2 – Ground Work Beneath Hovering Helicopter

WORK SITUATION: Aircraft Maintenance Section  
Army Aviation Support Facility #2  
Bldg. L45-300  
Marana, AZ 85653-9598

Technicians assigned to the AASF #2 are required periodically to assist with sling loads and act as ground guides. All of these operations place the technicians either directly under the hovering aircraft or within its rotor wash.

Sling load missions include moving fuel bladders, night vision goggles load training and assorted community support projects.

CATEGORY: Part 1, Category 2, Ground Work Beneath Hovering Helicopter;  
15%.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:  
Maintenance Officer, Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Five (5) WS-10, Fifteen (15) Aircraft Mechanics, WG-11, Eighteen (18) Aircraft Mechanics, WG-10.

AVERAGE LENGTH OF EXPOSURE: Two (2) hours per month.



EDP/HP DETERMINATION  
SITUATION NO. A901

CATEGORY OF EXPOSURE: Part 1, Category 2, Ground Work Beneath Hovering Helicopter. (All Types)

DIFFERENTIAL RATE: 15% \_\_\_\_ Hours in Pay Status XX Actual Exposure

WORK SITUATION: Aircraft Maintenance Section  
Army Aviation Support Facility #2  
Bldg. L45-300  
Marana, AZ 85653-9598

Technicians assigned to the AASF #2 are required periodically to assist with sling load operations. Technicians are required to rig loads, hook up loads and act as ground guides. All of these operations place the technician either directly under the hovering aircraft or within its rotorwash.

Sling load missions include moving fuel bladders, night vision goggles load training and assorted community support projects.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Five (5) WS-10, Fifteen (15) Aircraft Mechanics, WG-11, Eighteen (18) Aircraft Mechanics, WG-10.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:

Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review made: 21 Feb 90

Accident records attached ? No Safety report on work situation attached? No

Protective clothing/equipment required? Yes (If yes, list):

Helmet, eye protection, hearing protection, grounding squib.

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical instructions: Safety Directives

EDP/HP DETERMINATION: DATE OF DETERMINATION: 22 Apr 90

XX Recommend Approval

\_\_\_\_ Recommend Disapproval

JUSTIFICATION

Army Aviation Support Facility technicians are required at times to participate in operations and/or pilot training to attach and detach external loads to helicopters hovering just overhead.

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A902

AASF #2 – Fire Fighting – Low Degree Hazard

WORK SITUATION: Aircraft Maintenance Section  
Western Army Aviation Training Site  
Army Aviation Support Facility #1  
Army Aviation Support Facility #2  
Bldg. L45-300  
Marana, AZ 85653-9598

Technicians assigned to the maintenance section are required to assist in fire fighting duties and crash rescue. The technicians on crash rescue duties act as a supplement to a limited dedicated fire fighting force and are specifically trained for fire fighting duties.

During the swing shift, the night crew has sole responsibility for crash rescue and fire fighting.

Due to the high volume of emergency procedure training done at the AASF #2, there is a high probability of an aircraft mishap that could result in a post crash fire.

CATEGORY: Part II, Category 10, Fire Fighting; 8%.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:  
Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) WS-10 Aircraft Maintenance Foreman, Eight (8) WG-10/WG-11 Aircraft Maintenance Mechanics.

AVERAGE LENGTH OF EXPOSURE: 8 Hours daily on call.

EDP/HP DETERMINATION

SITUATION NO. A902

CATEGORY OF EXPOSURE: Part II, Category 10, Fire Fighting

DIFFERENTIAL RATE: 8% XX Hours in pay status        Actual Exposure

WORK SITUATION: Technicians assigned to the maintenance section are required to assist in fire fighting duties and crash rescue. There are twelve (12) technicians on crash rescue duties at all times during the duty day. They act as a supplement to a limited dedicated fire fighting force and are specifically training for the fire fighting duties.

During the swing shift, the night crew has sole responsibility for crash rescue and fire fighting.

Due to the high volume of emergency procedure training done at the AASF #2, there is a high probability of an aircraft mishap that could result in a post crash duties.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) WS-10 Aircraft Maintenance Foreman, Eight (8) WG-10/WG-11 Aircraft Maintenance Mechanics.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:

Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review made: 21 Feb 90

Accident records attached? No Safety report on work situation attached? No

Protective clothing/equipment required? Yes (If yes, List):

Fire suit, Fire truck, SCBA respirators, and fire extinguishers.

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical Instructions: Safety directives

EDP/HP DETERMINATION: DATE OF DETERMINATION: 22 Apr 90

XX Recommend Approval        Recommend Disapproval

JUSTIFICATION

Participating or assisting in fire fighting operation or immediate fire scene and indirect exposure to the hazards inherent in containing or extinguishing fires.

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A903

AASF #2 – Flying (Helicopter Maintenance)

WORK SITUATION: Aircraft Maintenance Section  
Army Aviation Support Facility #2  
Bldg. L45-300  
Marana, AZ 85653-9598

Technicians assigned to the AASF #2 maintenance section are required to perform aerial flights. Technicians participate in:

- a. Maintenance Test Flights.
- b. Pilot Emergency Training.
- c. Low Level Terrain Flight Training below 500 feet.
- d. Search and Rescue, Law Enforcement, and Wildlife Survey below 200 feet.

Test flights routinely require the use of the Chadwick Vibrex and the engine vibration monitor. With this equipment installed on the aircraft, the cockpit becomes crowded and uncomfortable. The boxes and wires that are used make emergency egress from the helicopter difficult. This adds to the already hazardous nature of the flight.

Technicians perform crew duties on the UH-1H helicopter and UH-60A helicopter. Missions routinely include emergency training for pilots, low level terrain flight, search and rescue, wildlife surveys, law enforcement activities and VIP missions.

CATEGORY: Part 1, Category 1, Flying; 100%.

OFFICIALS AUTHORIZED TO APPROVE PAYROLL DOCUMENTATION: Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: One (1) WS-9 Aircraft Maintenance Foreman, Five (5) WG-11 Aircraft Maintenance Mechanics.

AVERAGE LENGTH OF EXPOSURE: 1 to 4 hours daily.

Note: 100% EDP is due to maintenance personnel required to fly, to conduct duties and responsibilities. The change includes the fact that engine mechanics fly as per duty requires, per 5 CFR, Chapter 1, Part 532, Sections 532.501 and 532.511, subpart E and appendix A. This was approved by HRO 6 Jan 1995.

Updated 31 Jul 2001

EDP/HP DETERMINATION

SITUATION NO. A903

CATEGORY OF EXPOSURE: PART 1, CATEGORY 1, Flying

DIFFERENTIAL RATE: 50% \_\_\_\_\_ Hours in Pay Status XX Actual Exposure

WORK SITUATION: Aircraft Maintenance Section  
Army Aviation Support Facility #2  
Bldg. L45-300  
Marana, AZ 85653-9598

Technicians assigned to the AASF #2 maintenance section are required to perform aerial flights. Technicians participate in:

- a. Maintenance Test Flights.
- b. Pilot Emergency Training.
- c. Low Level Terrain Flight Training below 500 feet.
- d. Search & Rescue, Law Enforcement, and Wildlife survey below 200 feet.

Test flights routinely require the use of the Chadwick Vibrex and engine vibration monitor. With this equipment installed on the aircraft, the cockpit becomes crowded and uncomfortable. The boxes and wires that are used make emergency egress from the helicopter difficult. This adds to the already hazardous nature of the flight.

Technicians perform crew duties on the UH-1H helicopter and UH-60A helicopter. Missions routinely include emergency training for pilots, low level terrain flight, search and rescue, wildlife surveys, law enforcement activities and VIP missions.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: One (1) WS-9 Aircraft Maintenance Foreman, Five (5) WG-11 Aircraft Maintenance Mechanics.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:

Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review made: 21 Feb 90

Accident records attached? No Safety report on work situation attached No

Protective clothing/equipment required? Yes (If yes, list): Nomex flight suit, flight helmet, flight gloves, and boots.

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical instructions: Safety Directives

EDP/HP DETERMINATION: DATE OF DETERMINATION: 22 Apr 90

XX Recommend Approval \_\_\_\_\_ Recommend Disapproval

## JUSTIFICATION

Participating in flights under one or more types of the following conditions:

- a. Test Flights of a new or repaired plane or modified aircraft when the repair or modification may affect the flight characteristics of the aircraft.
- b. Flights to test aircraft performance under adverse conditions such as in low altitude or severe weather conditions, maximum load limits, or overload.
- c. Flights to deliver aircraft which have been prepared for one time flight without being test flown prior to delivery flight.
- d. Flights for pilot proficiency training in aircraft new to the pilot under simulated emergency conditions which parallel conditions encountered in performing flight tests.
- e. Low-level flights in small aircraft including helicopters at altitude of 500 feet and under in daylight and 1000 feet and under at night when the flights are over mountainous terrain, or in helicopters maneuvering and hovering over water at altitudes of less than 500 feet.
- f. Low-level flights in an aircraft flying at altitudes of 200 feet and under while conducting wildlife surveys and law enforcement activities, and conducting or facilitating search and rescue operations.

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A904

### AASF #1 – Ground Work Beneath Hovering Helicopter

WORK SITUATION: Aircraft Maintenance Section  
Army Aviation Support Facility #1  
Phoenix, AZ 85008-3495

Technicians assigned to the AASF #1 are required periodically to assist with sling loads and act as ground guides. All of these operations place the technicians either directly under the hovering aircraft or within its rotor wash.

Sling load missions include moving fuel bladders, night vision goggles load training and assorted community support projects.

CATEGORY: Part 1, Category 2, Ground Work Beneath Hovering Helicopter;  
15%.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:  
Maintenance Officer, Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Five (5) WG-10, Aircraft Maintenance Mechanics, Six (6) WG-11, Aircraft Maintenance Mechanics

AVERAGE LENGTH OF EXPOSURE: Two (2) hours per month.

## EDP/HP DETERMINATION

SITUATION NO. A904

CATEGORY OF EXPOSURE: Part 1, Category 11, Ground Work Beneath Hovering Helicopter. (All Types)

DIFFERENTIAL RATE: 15% \_\_\_\_ Hours in Pay Status XX Actual Exposure

WORK SITUATION: Aircraft Maintenance Section  
Army Aviation Support Facility #1  
Phoenix, AZ 85008-3495

Technicians assigned to the AASF #1 are required periodically to assist with sling load operations. Technicians are required to rig loads, hook up loads and act as ground guides. All of these operations place the technician either directly under the hovering aircraft or within its rotor wash.

Sling load missions include moving fuel bladders, night vision goggles load training and assorted community support projects.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: Five (5) WG-10 Aircraft Maintenance Mechanic, Six (6) WG-11 Aircraft Maintenance Mechanic.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:

Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review made: 20 June 90

Accident records attached ? No Safety report on work situation attached? No

Protective clothing/equipment required? Yes (If yes, list):

Helmet, eye protection, hearing protection, grounding squib.

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical instructions: Safety Directives

EDP/HP DETERMINATION: DATE OF DETERMINATION: 20 June 90

XX Recommend Approval \_\_\_\_ Recommend Disapproval

## JUSTIFICATION

Army Aviation Support Facility technicians are required at times to participate in operations and/or pilot training to attach and detach external loads to helicopters hovering just overhead.



## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A905

AASF#1 – Fire Fighting – Low Degree

WORK SITUATION: Aircraft Maintenance Section  
Army Aviation Support Facility #1  
Phoenix, AZ 85008-3495

Technicians assigned to the maintenance section are required to assist in fire fighting duties and crash rescue. There are eleven (11) technicians on crash rescue duties at all times during the duty day. They act as a supplement to a limited dedicated fire fighting force and are specifically trained for fire fighting duties.

During the swing shift, the night crew has sole responsibility for crash rescue and fire fighting.

Due to the high volume of emergency procedure training done at the AASF #1, there is a high probability of an aircraft mishap that could result in a post crash fire.

CATEGORY: Part II, Category 10, Fire Fighting; 8%.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:  
Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Nine (9) WG-10 & Nine (9) WG- 11 Aircraft Maintenance Mechanics.

AVERAGE LENGTH OF EXPOSURE: 8 Hours daily on call.

## EDP/HP DETERMINATION

SITUATION NO. A905

CATEGORY OF EXPOSURE: Part II, Category 10, Fire Fighting

DIFFERENTIAL RATE: 8% XX Hours in pay status        Actual Exposure

WORK SITUATION: Technicians assigned to the maintenance section are required to assist in fire fighting duties and crash rescue. There are eleven (11) technicians on crash rescue duties at all times during the duty day. They act as a supplement to a limited dedicated fire fighting force and are specifically training for the fire fighting duties.

During the swing shift, the night crew has sole responsibility for crash rescue and fire fighting.

Due to the high volume of emergency procedure training done at the AASF #1, there is a high probability of an aircraft mishap which could result in a post crash duties.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Nine (9) WG-10 & Nine (9) WG- 11 Aircraft Maintenance Mechanics.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:  
Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review made: 20 June 90

Accident records attached? No Safety report on work situation attached? No

Protective clothing/equipment required? Yes (If yes, List): Fire suit, Fire truck, SCBA respirators, and fire extinguishers.

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical Instructions: Safety directives

EDP/HP DETERMINATION: DATE OF DETERMINATION: 20 June 90

XX Recommend Approval        Recommend Disapproval

## JUSTIFICATION

Participating or assisting in fire fighting operation on immediate fire scene and in direct exposure to the hazards inherent in containing or extinguishing fires.

## ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A906

AASF #1 – Flying (Helicopter Maintenance)

WORK SITUATION: Aircraft Maintenance Section  
Army Aviation Support Facility #1  
Phoenix, AZ 85008-3495

Technicians assigned to the AASF #1 maintenance section are required to perform aerial flights. Technicians participate in:

- a. Maintenance Test Flights.
- b. Pilot Emergency Training.
- c. Low Level Terrain Flight Training below 500 feet.
- d. Search & Rescue, Law Enforcement, and Wildlife Survey below 200 feet.

Test flights routinely require the use of the Chadwick Vibrex and the engine vibration monitor. With this equipment installed on the aircraft, the cockpit becomes crowded and uncomfortable. The boxes and wires that are used make emergency egress from the helicopter difficult. This adds to the already hazardous nature of the flight.

Technicians perform crew duties on the UH-1H, UH-60, helicopters. Missions routinely include emergency training for pilots, low level terrain flight, search and rescue, wildlife surveys, law enforcement activities.

CATEGORY: Part 1, Category 1, Flying; 100%.

OFFICIALS AUTHORIZED TO APPROVE PAYROLL DOCUMENTATION: Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: Three (3) WS-09/10 Aircraft Maintenance Foreman, Nine (9) WG-10 Aircraft Maintenance Mechanics, Nine (9) WG-11 Aircraft Maintenance Mechanics.

AVERAGE LENGTH OF EXPOSURE: 1 to 4 hours daily.

Note: 00% EDP is due to maintenance personnel required to fly to conduct duties and responsibilities. The change also includes the fact that engine mechanics fly as per duty requires, per % CFR, Chapter 1, Part 532, Sections 532.501 and 532.511, subpart E and appendix A. This was approved by HRO 6 Jan 1995.

Updated 31 Jul 2001

EDP/HP DETERMINATION  
SITUATION NO. A906

CATEGORY OF EXPOSURE: PART 1, CATEGORY 1, Flying

DIFFERENTIAL RATE: 50% \_\_\_\_\_ Hours in Pay Status XX Actual Exposure

WORK SITUATION: Aircraft Maintenance Section  
Army Aviation Support Facility #1  
Phoenix, AZ 85008-3495

Technicians assigned to the AASF #1 maintenance section are required to perform aerial flights. Technicians participate in:

- a. Maintenance Test Flights.
- b. Pilot Emergency Training.
- c. Low Level Terrain Flight Training below 500 feet.
- d. Search & Rescue, Law Enforcement, and Wildlife survey below 200 feet.

Test flights routinely require the use of the Chadwick Vibrex and engine vibration monitor. With this equipment installed on the aircraft, the cockpit becomes crowded and uncomfortable. The boxes and wires that are used make emergency egress from the helicopter difficult. This adds to the already hazardous nature of the flight.

Technicians perform crew duties on the UH-1H helicopter and UH-60 helicopter. Missions routinely include emergency training for pilots, low level terrain flight, search and rescue, wildlife surveys, law enforcement activities.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: Three (3) WS-09/10 Aircraft Maintenance Foreman, Nine (9) WG-10 Aircraft Maintenance Mechanics, Nine (9) WG-11 Aircraft Maintenance Mechanics.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:

Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review made: 20 June 90

Accident records attached? No Safety report on work situation attached No

Protective clothing/equipment required? Yes (If yes, list): Nomex flight suit, flight helmet, flight gloves, and boots.

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical instructions: Safety Directives

EDP/HP DETERMINATION: DATE OF DETERMINATION: 20 June 90

XX Recommend Approval \_\_\_\_\_ Recommend Disapproval

## **JUSTIFICATION**

Participating in flights under one or more types of the following conditions:

- a. Test Flights of a new or repaired plane or modified aircraft when the repair or modification may affect the flight characteristics of the aircraft.
- b. Flights to test aircraft performance under adverse conditions such as in low altitude or severe weather conditions, maximum load limits, or overload.
- c. Flights to deliver aircraft which have been prepared for one-time flight without being test flown prior to delivery flight.
- d. Flights for pilot proficiency training in aircraft new to the pilot under simulated emergency conditions which parallel situations encountered in performing flight tests.
- e. Low-level flights in small aircraft including helicopters at altitude of 500 feet and under in daylight and 1000 feet and under at night when the flights are over mountainous terrain, or in helicopters maneuvering and hovering over water at altitudes of less than 500 feet.
- f. Low-level flights in an aircraft flying at altitudes of 200 feet and under while conducting wildlife surveys and law enforcement activities, and conducting or facilitating search and rescue operations.

ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A941

AASF#2 – Poisons (Radiation) (CSMS, Calibration)

CATEGORY OF EXPOSURE: Category 5

DIFFERENTIAL RATE: 4%      XX Hours in pay status      \_\_\_\_\_ Actual Exposure

WORK SITUATION: Employee(s) perform calibration and wipe/leak testing of radioactive materials. Job requires the use of personnel dosimetry to monitor exposure. With the addition of responsibilities to perform as a RPO for the MC-1 employees will now participate in a whole body dosimetry program as required by regulations and Federal NRC laws.

OFFICIALS AUTHORIZED TO ASSIGN EMPLOYEES AND APPROVE PAYROLL DOCUMENTATION: Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Four (4).

AVERAGE LENGTH OF EXPOSURE: 4-6 hours per year

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:  
Date on-site review made: 24 Apr 98

Accident records attached? No      Safety report on work situation attached? No

Protective clothing/equipment required? No (If yes, List):

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical Instructions: Safety directives

EDP/HP DETERMINATION:      DATE OF DETERMINATION: 20 June 90

XX Recommend Approval      \_\_\_\_\_ Recommend Disapproval

### SECTION 3 – ADMINISTRATION

1. EDP/HP will be administered in accordance with NGB Pam 37-105-1/AFM 177-372 VOL 2, Technician Time and Attendance Procedures.
2. Administrative procedures for performance of approved EDP/HP duty:
  - For ANG technicians:
    - Supervisor or designated authority submit a list of eligible members (include name, position and grade) to FMFPC.
    - When EDP/HP work is performed, supervisor or designated authority submit completed NGB Form 104, Certificate of Authorization for EDP/HP (Annex B), with attached time and attendance report(s) to FMFPC.
  - For ARNG technicians:
    - DCP time and attendance report must be accompanied with NGB Form 104, Certificate of Authorization for EDP/HP (Annex B).
    - These documents must be forwarded to arrive in USPFO for Arizona, ATTN: AZAA-PFC-PT no later than close of business, Friday, at the end of the pay period.
3. NGB Form 104 – Category of Exposure column must reflect the locally approved category of exposure and differential rate.
  - (1) The letter code, NGB Form 104 “Summary of Environmental Differential Pay Hours” section will be used; code letters are keyed to Section 3 Par I and Part II categories and differentials.
  - (2) Exposure must be shown as it occurs each workday, even though the same exposure may occur on consecutive workdays.
  - (3) Exposure is entered by date, inclusive clock time, and actual elapsed time in hours for each exposure category shown.
  - (4) EDP is paid under Appendix J, on either the basis of actual exposure or on basis of hours in a pay status.
  - (5) EDP is payable only when safety and health procedures have not practically eliminated the hazard.
4. For New EDP/HP work situations: To request EDP/HP work situations to be reviewed by the EDP/HP Committee, fill out an EDP Situation Form (Annex B).
5. For Approved EDP/HP work situations: To document actual exposure status of approved EDP/HP work situations, supervisor fill out NGB Form 104 (See Samples – Annex C and D).

ANNEX A

EDP/HP SITUATION FORM

TO: HRO (AZAA-HR-CS)  
Attn: Position Classification Specialist  
5636 E. McDowell Road  
Phoenix, AZ 85008-3495

Date Submitted: \_\_\_\_\_

TYPE OF EXPOSURE: \_\_\_\_\_

DURATION OF EXPOSURE: \_\_\_\_\_

DESCRIBE WORK SITUATION: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

IMPACT: \_\_\_\_\_

\_\_\_\_\_

COORDINATING OFFICES:

**ANG (Phoenix & Tucson)**

Unit Commanders  
Public Health Technician  
Occupational Safety Specialist  
Bio-Environmental Engineering Technician  
Environmental Coordinator

**ARMY NG**

Unit Commanders  
State Safety Manager  
Environmental Protection Specialist

WHOM TO CONTACT FOR ADDITIONAL INFORMATION:

Name: \_\_\_\_\_ Duty Phone: \_\_\_\_\_

Title: \_\_\_\_\_

Work Location: \_\_\_\_\_

ACCIDENT RECORDS ATTACHED? \_\_\_\_\_ SAFETY DIRECTIVES ATTACHED? \_\_\_\_\_

PROTECTIVE CLOTHING/EQUIPMENT REQUIRED? \_\_\_\_\_ (If yes, list) \_\_\_\_\_



HAZARD CLASSIFICATION IF SITUATION INVOLVES EXPLOSIVES OR INCENDIARY  
DEVICE:

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Attachment #1

EDP/HP DETERMINATION

DATE SUBMITTED: \_\_\_\_\_ SITUATION #: \_\_\_\_\_  
CATEGORY OF EXPOSURE:

DIFFERENTIAL RATE: \_\_\_\_\_ % Hours in Pay Status \_\_\_\_\_ Actual Exposure \_\_\_\_\_

DESCRIBE WORK SITUATION: \_\_\_\_\_

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APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE:

Official(s) authorized to certify to exposures for pay purposes: \_\_\_\_\_

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Date on-site review made: \_\_\_\_\_

Accident records attached? \_\_\_\_\_ Safety report on work situation attached? \_\_\_\_\_

Protective clothing/equipment required? \_\_\_\_\_ (If yes, list) \_\_\_\_\_

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Hazard classification (If involving explosive or incendiary device):

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Appropriate technical instructions: \_\_\_\_\_

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EDP/HP DETERMINATION: \_\_\_\_\_ DATE OF DETERMINATION: \_\_\_\_\_

\_\_\_\_\_ Recommend Approval \_\_\_\_\_ Recommend Disapproval

AZSP FORM 532-2 (15 Jun 98)

For use of this form see AZ ARNGR 690-532-1/AZ ANGR 40-532-1

## JUSTIFICATION

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## Annex B

**SAMPLE ONLY**

**ANNEX C**

**Actual Exposure Status                      AGO TPP 532-8**  
**Certification of Authorization for Environmental Differential Pay**

<b>Name</b>	<b>SSAN</b>	<b>Unit &amp; Location</b>
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I certify below that this employee is exposed to the following hazard, physical hardship, or working condition category(ies) for the duration indicated, incidental to performing his assigned duties and is, therefore, authorized environmental differential pay in accordance with Subchapter S8-7 and Appendix J of FPM Supplement 532-1.

<b>Cat Expo</b>	<b>Date</b>	<b>From</b>	<b>To</b>	<b>Total Hours</b>	<b>Signature &amp; Title of Authorizing Officer</b>
A	2 Jan	0830	0930	1:00	Intermittent Exposure-Record as 1.7 hours of EDP
	2 Jan	1400	1440	:40	
A	3 Jan	0900	1100	2:00	Intermittent Exposure to Two Differentials at same time, highest differential only is considered, record as 2.5 hours of EDP
D	3 Jan	0900	1100	2:00	
A	3 Jan	1400	1425	:25	
D	3 Jan	1400	1425	:25	
A	6 Jan	0900	1045	1:45	Exposure to 3 Differentials – Highest only is considered
B	6 Jan	0900	1045	1:45	
D	6 Jan	1030	1045	:15	
A	14 Jan	0900	1100	2:00	Single Differential Exposure
D	15 Jan	1000	1010	:10	Single Differential Exposure – Paid Minimum of one hour's differential for Each exposure – record as 1 hour EDP

**FOR PAYROLL USE ONLY**

**Summary of Environmental Differential Pay Hours**

<u>Category I</u>			<u>Category II</u>		
<b>Rate</b>	<b>Code</b>	<b>Hours</b>	<b>Rate</b>	<b>Code</b>	<b>Hours</b>
100%	A	_____	50%	M	_____
25%	B	_____	8%	N	_____
15%	C	_____	4%	O	_____
4%	D	_____			

